

REMARKS

Claims 1-45 are pending, with claims 1, 21, and 34 being independent.

Claims 1-9, 12-14, 21-33, and 34-45 stand provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1-9, 10-12, 43-53, 55, 56, and 61-72 of copending Application No. 09/810,421. Applicants will address the provisional obviousness-type double patenting rejection upon indication that the claims are otherwise allowable.

Claims 1-45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Reed (6,671,739) in view of Kikinis (6,167,120). Applicants respectfully traverse the rejection.

Claim 1 recites a system for connecting multiple home-networked client devices to a host system, where the host system assigns independent Internet addresses to the home-networked client devices. The system includes, among other features, a home gateway device that includes a communication device to communicate with the host system over a single communication tunnel established between the home gateway device and the host system. The home gateway device includes a network address translation module. Multiple home-networked client devices connected to the home gateway device via a network communicate with the host system through the home gateway device over the single communication tunnel. The host system establishes individual communication sessions with the multiple home-networked client devices over the single communication tunnel and assigns independent Internet addresses to the multiple home-networked client devices.

Applicants request reconsideration and withdrawal of the rejection because Reed and Kikinis, either alone or in combination, fail to describe or suggest all features and limitations of independent claim 1. Specifically, Reed and Kikinis fail to describe or suggest a host system that assigns independent Internet addresses to the home-networked client devices such that the client devices may communicate in individual communication sessions with the host system over a single communication tunnel, as recited in claim 1.

Reed briefly describes a conventional router as being part of a LAN and as being configured to assign distinct addresses to each client connected to different hubs of a LAN. (Reed, col. 3, lines 12-19).

Reed criticizes the conventional router for its inability to prevent clients on the same LAN segment from interfering with and intercepting traffic from other clients. (Reed, col. 3, lines 15-18).

The invention is distinct from conventional router mechanisms that are commonly part of conventional LANs. More specifically, conventional routers assume that each client has a distinct address and a properly configured address. In addition, the router cannot prevent clients on the same LAN segment from interfering with and intercepting traffic from other clients. The router assigns distinct addresses to each client connected to the different hubs of a LAN. (Reed, col. 3, lines 12-19).

Having established this background, Reed then describes a system in which "all packets generated by a port (client) are sent to a server that actually does packet processing." (Reed, col. 2, line 67-col. 3, line 4). Specifically, in Reed, one or more hubs with which a client communicates that receives all packets from the client and forwards the packets to a server. The server checks the packets to ensure that they are valid, and fixes them if necessary, before forwarding the packets to their original destination. The server knows which addresses are valid using normal network configuration rules. Thus, if an address is received from a local client that is not a valid address, it is fixed. Similarly if a single address is used by multiple clients, it is fixed by the server. The addresses are fixed by the server by using a valid address as the source of the packet and translating the address whenever it is used to respond to a message. (Reed col. 3, lines 38-54).

Reed does not describe a system that enables the host system to assign independent Internet addresses to the multiple home-networked client devices, as recited in claim 1. While Reed describes a server 13 that assigns valid addresses to a client 10 with an otherwise invalid address, the server 13 is not a host system with which the client 10 originally and ultimately intends to communicate. Instead, the server 13 processes packets sent from the client 10 to the host system before forwarding the packets to the host system. (Reed, col. 3, lines 43-44). In

other words, the server 13 is an intermediary through which the client 10 communicates with the host system. Furthermore, a LAN 12 is not a host system with which the client 10 originally and ultimately intended to communicate, but rather an intermediary through which the client 10 communicates with the host system. A hub 11 is another intermediary through which the client communicates with the server 13, and ultimately the host system.

Reed describes the hub 11 readdressing a packet originally sent from the client 10 to the host system such that the packets are directed to the server 13, instead of to the host system. The server 13 processes the packet, which may result in the server 13 assigning an address to the client 10 in the packet. After processing the packet, the server 13 then forwards packet to the host system. (Reed col. 4, lines 4-12). As a result, the client 10 communicates with the host system through the server 13 using an address that was assigned to the client by the server and not by the host system. Therefore, Reed fails to describe a system in which the host system assigns independent Internet addresses to home-networked client devices such that the client devices may communicate in individual communication sessions with the host system over a single communication tunnel, as recited in claim 1.

In general, conventional routers do not enable a host system to assign independent Internet addresses to multiple home-networked client devices, as recited in claim 1. Instead, a conventional router itself assigns addresses to the client devices to enable the client devices to communicate with the host system. More particularly, the router receives packets from the client devices, readdresses the packets with addresses for the client devices that are assigned by the router, and forwards the readdressed packets to the host system. As such, the router is not a host system with which the client devices desire to communicate, but rather an intermediary through which the client devices communicate with the host system. Therefore, a conventional router is not a host system with which the client devices communicate using addresses assigned by the host system.

Furthermore, Reed does not disclose multiple clients communicating with a host system in individual communication sessions over a single communication tunnel established between a home gateway device and the host system, as recited by claim 1. Reed describes a system in

which packets from the multiple clients are forwarded to the host system by a server 13. (Reed, col. 3, lines 43-44). The packets may be forwarded to the host system over a single communication tunnel established between the server and the host system.

The forwarded packets are addressed with addresses for the multiple clients that are assigned by the server 13. Because the addresses of the multiple clients are assigned by the server 13, the host system to which the packets are forwarded is unaware of the addresses of the multiple clients until the forwarded packets are received. Because the host system does not know the addresses of the multiple clients, the host system may not initiate communication with the multiple clients. As such, the host system cannot establish individual communication sessions with the multiple clients over the single communication tunnel, as recited by claim 1.

Kikinis discloses a multimedia data distribution system for distributing data to multiple client devices in a home network. The data distribution system employs a micro-PBX that is a converter and bus management system adapted to receive data from an external system for all of the client devices in the home network, and to route the data onto an internal bus connecting the home network. (Kikinis, col. 6, lines 61-65). The micro-PBX operates the internal bus of the home network under a multiple access points type protocol, such as Carrier Sense Multi Access/Collision Detect (CSMA/CD) protocol. (Kikinis, col. 6, line 65-col. 7, line 1). In such a protocol, data placed on the bus may be detected by any of the client devices and may be retrieved by a client device seeking to use the data. In addition, multiple client devices cannot communicate with the external system over the bus at the same time. Data to or from only one of the client devices is placed on the bus at a time such that data to or from multiple client devices does not collide. As a result, only one of the client devices may communicate with the external system over the bus and through the micro-PBX at a time. In other words, the multiple client devices share a common communications session established between the external system and the micro-PBX. Therefore, Kikinis also does not disclose client devices involved in individual communication sessions over a single communication tunnel with a host system that assigns independent Internet addresses to the client devices.

Thus, Reed and Kikinis, either alone or in combination, do not describe the features of a host system assigning independent Internet addresses to the home-networked client devices such that the client devices may communicate with the host system in individual communication sessions over a single communication tunnel, as recited in claim 1. The combination of Reed and Kikinis do not teach the nexus that is required between a host system assigning independent addresses to the client devices and the client devices communicating with the host system in individual communication sessions over a single communication tunnel.


For at least these reasons, Applicant respectfully requests withdrawal of the §103(a) rejection of claim 1 and its respective dependent claims.

Similarly, independent claims 21 and 34 recite an arrangement in which a host system assigns independent Internet addresses to the home-networked client devices such that the client devices may communicate with the host system in individual communication sessions over a single communication tunnel. Accordingly, Applicants request reconsideration and withdrawal of the §103(a) rejection of claims 21 and 34 and their respective dependent claims for the reasons discussed above with respect to claim 1.

Please apply any deficiencies or credits to deposit account 06-1050.

Respectfully submitted,

Date: 10/28/2004



Joseph F. Key
Reg. No. 44,827

Fish & Richardson P.C.
1425 K Street, N.W.
11th Floor
Washington, DC 20005-3500
Telephone: (202) 783-5070
Facsimile: (202) 783-2331